

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/NL2004/000528

International filing date (day/month/year)
22.07.2004

Priority date (day/month/year)
22.07.2003

International Patent Classification (IPC) or both national classification and IPC
B24B23/04, B24D9/08

Applicant
ROBERT BOSCH GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 68.1b/s(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Tel. +31 70 340 2000 Telex 551 000 000

Authorized Officer

Eschbach, D



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EL 243 106 035

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2004/000528

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2004/000528

Box No. II Priority

1. ☒ The following document has not been furnished:
- ☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).
 - ☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).
- Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.
2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.
3. Additional observations, if necessary:

Box No. IV Lack of unity of invention

1. ☐ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
- ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ not paid additional fees.
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
 - ☒ not complied with for the following reasons:
see separate sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☒ all parts.
 - ☐ the parts relating to claims Nos.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/NL2004/000528

Box No. V Reasoned statement under Rule 43b/s.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-26
	No: Claims	
Inventive step (IS)	Yes: Claims	1-26
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-26
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item IV.

The separate inventions/groups of inventions are:

1-8, 25,26

Sanding device for a sanding machine where the radius of curvature on the surface for sanding can be adjusted during sanding

9-26

Sanding device for a sanding machine connected releasably and rotatably to the carrier to provide the option of exchanging the sanding device

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

Document D1: WO 96/34721 discloses a sanding apparatus for a sanding machine which is suitable for sanding surfaces with different radii of curvature.

This is also the single general concept of the application linking the different independent claims 1 and 9.

Subject 1:

The contribution over the prior art of claim 1 could be defined as to adjust the radius of curvature on the surface for sanding during sanding

Subject 2:

The contribution over the prior art of claim 9 could be defined as to provide an option of exchanging the sanding element

Conclusion:

Since the single general concept of the application is already known from D1, the claimed separate inventions are neither identical nor linked by a single general inventive concept.

Re Item V.

1 The following documents are referred to in this communication:

D1 : WO 96/34721 A (KOCH DIETMAR ; SCHLATT ALICE (DE); SZEKERES FRANZ (DE)) 7 November 1996 (1996-11-07)

D2 : EP 1 252 972 A (YKK CORP) 30 October 2002 (2002-10-30)

- 2 Document D1, which is considered to represent the most relevant state of the art, discloses (the references in parenthesis applying to this document):**

a sanding device for a sanding machine comprising a carrier, a sanding element and at least two coupling elements with which the sanding element is coupled to the carrier, wherein a movable connection is provided between the sanding element and the carrier (see D1 page 3, line 26 to page 6, line 16).

From this, the subject-matter of independent claim 1 differs in that:

the ends of the coupling elements coupled to the sanding element can move relative to each other during sanding.

- 2.1 The subject-matter of claim 1 is therefore novel (Article 33(2) PCT)**

The problem to be solved by the present invention may be regarded as:

adapting the device to different radii of curvature of the workpiece.

- 2.2 The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:**

the radius of curvature on the surface for sanding can be adjusted during sanding because of the movable elements which is neither disclosed nor suggested by D1.

- 2.3 Claims 2-8 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.**

- 3 Document D2, which is considered to represent the most relevant state of the art, discloses (the references in parenthesis applying to this document):**

a sanding device for a sanding machine comprising a carrier, a sanding element and at least one coupling elements with which the sanding element is coupled to the carrier.

From this, the subject-matter of independent claim 9 differs in that:

the coupling element is connected to a base and that the base is connected releasably and rotatably to the carrier.

- 3.1 The subject-matter of claim 9 is therefore novel (Article 33(2) PCT)
The problem to be solved by the present invention may be regarded as:
to provide an option of exchanging the sanding element
- 3.2 The solution to this problem proposed in claim 9 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:
the rotation of the base with respect to the carrier for the purpose of exchanging the sanding element e.g. by using a bayonet fitting is neither disclosed nor suggested by D2.
- 3.3 Claims 10-24 are dependent on claim 9 and as such also meet the requirements of the PCT with respect to novelty and inventive step.
- 4 Independent claim 25 and dependent claim 26 disclose a sanding machine using a sanding device according to either claim 1 or claim 9 and as such also meets the requirements of the PCT with respect to novelty and inventive step.

INTERNATIONAL SEARCH REPORT

Int'l Application No
PCT/NL2004/000528

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B24B23/04 B24D9/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B24B B24D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 96/34721 A (KOCH DIETMAR ; SCHLATT ALICE (DE); SZEKERES FRANZ (DE)) 7 November 1996 (1996-11-07) page 3, line 26 - page 6, line 16	1-8, 25, 26
A	EP 1 252 972 A (YKK CORP) 30 October 2002 (2002-10-30) paragraph '0033! - paragraph '0039!	9-26

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *Z* document member of the same patent family

Date of the actual completion of the international search

5 November 2004

Date of mailing of the international search report

15/11/2004

Name and mailing address of the ISA

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Authorized officer

Eschbach, D

INTERNATIONAL SEARCH REPORT

International application No.
PCT/NL2004/000528

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-8, 25,26

Sanding device for a sanding machine where the radius of curvature on the surface for sanding can be adjusted during sanding

2. claims: 9-26

Sanding device for a sanding machine connected releasably and rotatably to the carrier to provide the option of exchanging the sanding device

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/NL2004/000528

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 9634721	A	07-11-1996	DE	19534014 A1	07-11-1996
			DE	19544465 A1	05-06-1997
			WO	9634721 A2	07-11-1996
EP 1252972	A	30-10-2002	JP	2002307315 A	23-10-2002
			CN	1381334 A	27-11-2002
			EP	1252972 A1	30-10-2002
			TW	541219 B	11-07-2003
			US	2002160703 A1	31-10-2002

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